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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/026,454 | 12/27/2001 | Hiroki Takeuchi | Q67930 | 1274 |

7590 12/18/2002

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| EXAMINER |
|---|
| WILLIAMS, ALEXANDER O |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2826 | |

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/026,454 | TAKEUCHI ET AL. | |
| | Examin r | Art Unit | |
| | Alexander O Williams | 2826 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *26 August 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) *1-4* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *5-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Serial Number: 10/026454 Attorney's Docket #: Q67930
Filing Date: 12/27/2001; claimed foreign priority to 12/28/2000 and 8/27/2001

Applicant: Takeuchi et al.

Examiner: Alexander Williams

This action is mailed to replace the previous action because a reference was not cited. The time is restarted as of the mailing of this office action.\

Applicant's Amendment/election of Group I (claims 5 to 12) in Paper # 9, filed 8/26/02, has been acknowledged.

This application contains claims 1 to 4 drawn to an invention non-elected with traverse in Paper No. 9.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;

(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The substitute specification filed 3/8/02 has not been entered because it does not conform to 37 CFR 1.125(b)because: It does not provide a marked up copy of the specification.

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel,* 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum,* 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi,* 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman,* 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and © may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 5 to 12 are provisionally rejected under the judicially created doctrine of double patenting over claims 10 to 15 of copending Application No. 10/024601. This is a

provisional double patenting rejection since the conflicting claims have not yet been patented.

Claims 5 to 12 are provisionally rejected under the judicially created doctrine of double patenting over claims 7 to 10 of copending Application No. 10/025764. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

Claims 5 to 12 are provisionally rejected under the judicially created doctrine of double patenting over claims 4 to 8 of copending Application No. 10/042317. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

Claims 5 to 12 are provisionally rejected under the judicially created doctrine of double patenting over claims 1 to 6 of copending Application No. 10/024581. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

Claims 5 to 12 are provisionally rejected under the judicially created doctrine of double patenting over claims 1 to 9 of copending Application No. 10/026928. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the

instant application are claiming common subject matter, as follows: a wiring substrate comprising: an insulating substrate having an opening; at least one electronic part disposed I the opening; an embedding resin comprising a thermoplastic resin, an acid anhydride curing agent, a curing accelerator, and a filler, wherein the at least one electronic part is embedded with the embedding resin.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

The Examiner notes that over and above a "basic" obviousness-type double patenting situation wherein a comparison of the claims takes place, the case law detailed above makes it clear that in cases where Applicant has voluntarily filed a later application seeking claims which provide a different form of coverage for same general invention disclosed in a parent, an obviousness type double patenting rejection may automatically apply since the granting of the claims of the later filed

application may automatically extend the patent term granted for the original patented claims on the same general invention.

Claims 7 to 12 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 7 to 12, it is unclear and confusing to what is meant by "The embedding resin" since the independent claims 5 and 6 refer to a wiring substrate.

Any of claims 7 to 12 not specifically addressed above are rejected as being dependent on one or more of the claims which have been specifically objected to above.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Initially, and with respect to claims 5 to 7 and 10, note that a "product by process" claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); In re Fitzgerald, 205 USPQ 594, 596 (CCPA); In re Marosi et al., 218 USPQ 289 (CAFC); and most recently, In re Thorpe et al., 227 USPQ 964 (CAFC, 1985) all of which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that Applicant has burden of proof in such cases as the above case law makes clear.

Claims 5 to 12, **insofar as some of them can be understood**, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Konarski (U.S. Patent Application Publication # 2002/0058756 A1). .

For example, in claim 5, Konarski (figures 1 and 2) show a wiring substrate comprising: an insulating substrate **21** having an opening; at least one electronic part **2** disposed in the opening; an embedding resin **23** comprising a thermoplastic resin, an acid anhydride curing agent, a curing accelerator, and a filler, wherein the at least one electronic part is embedded with the embedding resin.

As to the grounds of rejection under section 103, see MPEP § 2113.

Claims 5 to 12, **insofar as some of them can be understood**, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsukagoshi et al. (U.S. Patent # 5,120,665).

For example, in claim 5, Tsukagoshi et al. (figures 1a to 9) specifically figure 8 show a wiring substrate comprising: an insulating substrate **14** having an opening; at least one electronic part **11** disposed in the opening; an embedding resin **13,16,18,1** comprising a thermoplastic resin, an acid anhydride curing agent, a curing accelerator, and a filler, wherein the at least one electronic part is embedded with the embedding resin.

As to the grounds of rejection under section 103, see MPEP § 2113.

Claims 5 to 12, **insofar as some of them can be understood**, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sumita (U.S. Patent # 6,429,238 B1). .

For example, in claim 5, Sumita (figures 1 to 2A) show a wiring substrate comprising: an insulating substrate **1** having an opening; at least one electronic part **3** disposed in the opening; an embedding resin **4,5** comprising a thermoplastic resin, an acid anhydride curing agent, a curing accelerator, and a filler, wherein the at least one electronic part is embedded with the embedding resin.

As to the grounds of rejection under section 103, see MPEP § 2113.

The listed references are cited as of interest to this application, but not applied at this time.

| Field of Search | Date |
|---|---|
| U.S. Class and subclass:<br>257/783,758,700,701,668,759,784,786-790 | 11/13/02 |
| Other Documentation:<br>foreign patents and literature in<br>257/783,758,700,701,668,759,784,786-790 | 11/13/02 |
| Electronic data base(s):<br>U.S. Patents EAST | 11/13/02 |

***Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to Technology Center 2800 via the Technology Center 2800 Fax center located in Crystal Plaza 4-5B15. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 2800 Fax Center number is (703) 308-7722 or 24. Only Papers related to Technology Center 2800 APPLICATIONS SHOULD BE FAXED to the GROUP 2800 FAX CENTER.***

Any inquiry concerning this communication or any earlier communication from the examiner should be directed to ***Examiner Alexander Williams*** whose telephone number is **(703) 308-4863**.

Any inquiry of a general nature or relating to the status of this application should be directed to the ***Technology Center 2800 receptionist*** whose telephone number is **(703) 308-0956**.

12/12/02

Primary Examiner
Alexander O. Williams